# UNITED STATES DISTRICT COURT EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

3D SYSTEMS, INC.,

Case No. 05-74891

Plaintiff,

:

Hon. Avern Cohn

ENVISIONTEC, INC., ENVISIONTEC

GMBH, and SIBCO, INC.,

v.

Magistrate Judge

Hon. R. Steven Whalen

Defendants.

**JURY DEMANDED** 

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#### JURY INSTRUCTIONS ON THE LAW OF THE CASE

### LAW OF THE CASE INSTRUCTION NO. 1

As you saw and heard in the film, the United States Constitution provides for patents to afford legal protection for inventions. Whoever invents or discovers a new and useful device or a new and useful improvement to an old or existing device may obtain a United States patent if he or she meets the requirements of the law for obtaining a patent.

The purpose of the United States patent system is to promote progress in the useful arts. Progress is promoted by requiring the inventor to disclose, or tell the public, all of the information that is needed to enable someone who is skilled in that field to use the invention, and the best way contemplated by the inventor for carrying out his or her invention when the patent application was filed. The latter are called preferred embodiments in the patent. In exchange for that public disclosure, the inventor gets the right to keep anyone else from making, using, or selling the patented invention within the United States for 20 years. At the end of the 20 year period, the invention becomes a part of what is called the "public domain," which means that anyone is free to use it.

### LAW OF THE CASE INSTRUCTION NO. 2

As you know, this is a patent case. It involves three U.S. Patents, Nos. 5,630,981, 651,934, and 5,902,537. Patents are often referred to by their last three digits. The patents in this case have be referred to as the '981 Patent, the '934 Patent and the '537 Patent.

The '981 Patent relates to stereolithography generally, and more particularly to a process of building parts and prototypes from computer-aided design, or CAD, files representing the object to be built. The CAD files are converted into data representing adjacent layers of the object to be built, and the part is then created by exposing the building material to light in response to the data.

The '934 Patent relates to a "winged blade" used in a sterolithography machine. The winged blade has a plurality of separate members (namely more than one) on a lower surface, which contact the building material and form smooth, level coating of the building material over previously formed layers of the object.

The '537 Patent relates to an applicator used in a sterolithography machine. The applicator applies or dispenses uncured building material and includes means for sweeping the applicator across at least some of the previously solidified object layers.

During the trial the parties offered testimony to familiarize you with this technology.

# **LAW OF THE CASE INSTRUCTION NO. 3**

3D Systems has asserted that Envisiontec's Perfactory and Vanquish machines infringe claim 11 of the '981 Patent, and that the Vanquish machines also infringe claim 2 of the '934 Patent and claim 81 of the '537 Patent. In this case, your job is to compare certain claim elements of each of the three asserted claims to the accused machines and to determine whether the machines have the characteristics described in the particular claim elements at issue. If they do, then it is said that the claim element is present in the accused machine or process. Another expression you may have heard during the course of the trial is that the claim element is "met" by the accused machine or process.

#### LAW OF THE CASE INSTRUCTION NO. 4

As to the '981 Patent, you only have to decide whether two of the claim elements are present in the Perfactory and Vanquish machines.

For the first element at issue, you will be asked to decide:

Whether, as required by claim 11, Envisiontec's Perfactory and Vanquish machines provide data representing adjacent cross sectional layers of the three-dimensional object to be formed which was generated on a CAD system.

As to the second element at issue in the '981 Patent, you will be asked to decide:

Whether, as required by claim 11, Envisiontec's Perfactory and Vanquish machines expose the medium (photopolymer) to said prescribed radiation (light) in response to the data representing adjacent cross-sectional layers of the three-dimensional object to be formed.

# LAW OF THE CASE INSTRUCTION NO. 5

As to the '934 Patent, you only have to decide whether two of the claim elements are present in the Vanquish machines.

As to the first of the two claim elements at issue, you will be asked to decide:

Whether, as required by claim 2, Envisiontec's Vanquish machine operates to form a smooth level coating of uncured building material of desired layer thickness over the previously formed layer.

As to the second claim element at issue in the '934 Patent, you will be asked to decide:

Whether, as required by claim 2, the winged blade which has a plurality of substantially separate members on a lower surface thereof contacts the building material.

#### LAW OF THE CASE INSTRUCTION NO. 6

Finally, as to the '537 Patent, you only have to decide:

Whether, as required by claim 81, the cooling blades of the Vanquish device apply or dispense uncured building material.

As to the second element, you will be asked to decide:

Whether, as required by claim 81, there is a means for sweeping the applicator across at least a portion of at least some of the previously formed object cross sections.

You will note that the second claim element of the '537 Patent is expressed in a special format known as "means-plus-function" format. Namely, the language used in this claim element is expressed as "means for sweeping the applicator ...."

For this means-plus-function element to be met, you must determine whether the identical function recited in this claim element is performed by the accused structure of the Vanquish machine. In this regard, I have determined that, as matter of law, the function is "sweeping the applicator across at least a portion of at least some of the previously formed object cross-sections."

You must also determine whether the accused structure in the Vanquish, namely a motor-driven belt and pulley system, is identical or an equivalent to the structure disclosed in '537 Patent for performing the function of sweeping the applicator across at least a portion of at least some of the previously formed object cross-sections. In this regard, I have found that the structure disclosed in the '534 Patent for performing that function is "a motor-driven threaded shaft."

In connection with deciding whether the motor-driven belt and pulley system in the Vanquish is an equivalent to a motor-driven threaded shaft, you should consider whether the differences between the two systems are substantial or insubstantial in relationship to the claimed function of sweeping the applicator across at least some of the previously formed object cross-sections.

### LAW OF THE CASE INSTRUCTION NO. 7

# (3D Systems' Position In Its Own Words)

In summary, 3D Systems' position in its own words is as follows:

First, for the '981 Patent, 3D Systems position is that in the Perfactory and Vanquish machines, the numbers 0 to 255, contained in the series of bitmaps used to control the amount of light applied to the building material for each successive layer, do in fact constitute "data" representing the adjacent cross-sectional layers of the three dimensional object to be formed which was generated on a CAD system. Thus, two claim elements at issue in the '981 Patent are met by both the Vanquish and Perfactory machines.

Second, for the '934 Patent, 3D Systems position is that the cooling blade of the Vanquish machine is a winged blade which has a plurality of substantially separate members on its lower surface which contact the building material, and that the cooling blade operates to form a smooth level coating of uncured building material of desired layer thickness over previously formed layers. As such, both claim elements at issue in the '924 Patent are met by the Vanquish machine.

Third, for the '537 Patent, 3D Systems position is that the cooling blade of the Vanquish machine dispenses uncured building material, and that the Vanquish machine includes a belt and pulley system which is an equivalent of a motor-driven threaded drive shaft for sweeping the cooling blade across at least a portion of at least some of the previously formed object cross-sections. As such, both claim elements of the '537 Patent are met by the Vanquish machine.

#### (Defendants' Position In Its Own Words)

[To be inserted by Defendants. Note that the Court's form specifically requires a summation of the parties' position in their own words – see pages 15 and 16 of Judge Cohn's civil jury instructions (rev. 6/8/06) forwarded by Julie Owens]

[Regarding DEFENDANTS' PROPOSED LAW OF THE CASE INSTRUCTION NO. 8 on Prosecution History Estoppel, this is not an issue in the case].